

## RAW SEQUENCE LISTING

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Application Serial Number: 10/509,094 A  
Source: PCT  
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PCT

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DATE: 06/21/2005

PATENT APPLICATION: US/10/509,094A

TIME: 09:36:16

Input Set : A:\new SEQUENCE LISTING.txt

Output Set: N:\CRF4\06212005\J509094A.raw

3 <110> APPLICANT: Innogenetics N.V.  
 5 <120> TITLE OF INVENTION: HBV DRUG RESISTANCE AND DRUG RESISTANCE DETECTION METHODS  
 7 <130> FILE REFERENCE: 2551-158  
 9 <140> CURRENT APPLICATION NUMBER: 10/509,094A  
**C--> 10 <141> CURRENT FILING DATE: 2004-09-28**  
 12 <150> PRIOR APPLICATION NUMBER: PCT/EP02/03559  
 13 <151> PRIOR FILING DATE: 2002-03-29  
 16 <160> NUMBER OF SEQ ID NOS: 16  
 18 <170> SOFTWARE: PatentIn version 3.1  
 20 <210> SEQ ID NO: 1  
 21 <211> LENGTH: 160  
 22 <212> TYPE: PRT  
 23 <213> ORGANISM: hepatitis B virus  
 25 <400> SEQUENCE: 1  
 28 Ala Met Pro His Leu Leu Val Gly Ser Ser Gly Leu Ser Arg Tyr Val  
 29 1 5 10 15  
 32 Ala Arg Leu Ser Ser Asn Ser Arg Ile Phe Asn Tyr Gln His Gly Thr  
 33 20 25 30  
 36 Met Gln Asn Leu His Asp Ser Cys Ser Arg Asn Leu Tyr Val Ser Leu  
 37 35 40 45  
 40 Leu Leu Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu Tyr Ser His  
 41 50 55 60  
 44 Pro Ile Ile Leu Gly Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser  
 45 65 70 75 80  
 48 Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg  
 49 85 90 95  
 52 Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr Met Asp Asp Val Val  
 53 100 105 110  
 56 Leu Gly Ala Lys Ser Val Gln His Leu Glu Ser Leu Phe Thr Ala Val  
 57 115 120 125  
 60 Thr Asn Phe Leu Leu Ser Leu Gly Ile His Leu Asn Pro Asn Lys Thr  
 61 130 135 140  
 64 Lys Arg Trp Gly Tyr Ser Leu His Phe Met Gly Tyr Val Ile Gly Cys  
 65 145 150 155 160  
 68 <210> SEQ ID NO: 2  
 69 <211> LENGTH: 137  
 70 <212> TYPE: PRT  
 71 <213> ORGANISM: hepatitis B virus  
 73 <400> SEQUENCE: 2  
 75 Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu  
 76 1 5 10 15  
 79 Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro  
 80 20 25 30

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83 Cys Arg Thr Cys Thr Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser
84      35      40      45
87 Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
88      50      55      60
91 Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala
92 65      70      75      80
95 Arg Phe Ser Trp Leu Ser Leu Val Pro Phe Val Gln Trp Phe Val Gly
96      85      90      95
99 Leu Ser Pro Thr Val Trp Leu Ser Val Ile Trp Met Met Trp Tyr Trp
100      100      105      110
103 Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro
104      115      120      125
107 Ile Phe Phe Cys Leu Trp Val Tyr Ile
108      130      135
111 <210> SEQ ID NO: 3
112 <211> LENGTH: 480
113 <212> TYPE: DNA
114 <213> ORGANISM: hepatitis B virus
116 <400> SEQUENCE: 3
118 gctatgcctc atcttcttgt tggttcttct ggactatcaa ggtatgttgc ccgtttgtcc      60
120 tctaattcaa ggtatcttcaa ctaccagcac gggaccatgc agaacctgca cgactcctgc      120
122 tcaaggaacc tctatgtatc cctcctgttg ctgtacaaa ccttcggacg gaaattgcac      180
124 ctgtattccc atcccatcat cctgggcttt cggaaaattc ctatgggagt gggcctcagc      240
126 ccgtttctcc tggtcagtt tactagtgcc atttgttcag tggttcgtag ggctttcccc      300
128 cactgtttgg ctttcagtta tatggatgat gtggtattgg gggccaagtc tgtacagcat      360
130 cttgagtccc tttttaccgc tgttaccaat tttcttctgt ctttgggtat acatttaaac      420
132 cctaacaaaa caaaaagatg gggttactct ttacatttca tgggctatgt cattggatgt      480
135 <210> SEQ ID NO: 4
136 <211> LENGTH: 160
137 <212> TYPE: PRT
138 <213> ORGANISM: hepatitis B virus
140 <400> SEQUENCE: 4
142 Ala Met Pro His Leu Leu Val Gly Ser Ser Gly Leu Ser Arg Tyr Val
143 1      5      10      15
146 Ala Arg Leu Ser Ser Asn Ser Arg Ile Phe Asn Tyr Gln His Gly Thr
147      20      25      30
150 Met Gln Asn Leu His Asp Ser Cys Ser Arg Asn Leu Tyr Val Ser Leu
151      35      40      45
154 Leu Leu Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu Tyr Ser His
155      50      55      60
158 Pro Ile Ile Leu Gly Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser
159 65      70      75      80
162 Pro Phe Leu Met Ala Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg
163      85      90      95
166 Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr Ser Asp Asp Val Val
167      100      105      110
170 Leu Gly Ala Lys Ser Val Gln His Leu Glu Ser Leu Phe Thr Ala Val
171      115      120      125
174 Thr Asn Phe Leu Leu Ser Leu Gly Ile His Leu Asn Pro Asn Lys Thr

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175      130      135      140
179 Lys Arg Trp Gly Tyr Ser Leu His Phe Met Gly Tyr Val Ile Gly Cys
180 145      150      155      160
183 <210> SEQ ID NO: 5
184 <211> LENGTH: 137
185 <212> TYPE: PRT
186 <213> ORGANISM: hepatitis B virus
188 <400> SEQUENCE: 5
190 Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu
191 1      5      10      15
194 Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro
195      20      25      30
198 Cys Arg Thr Cys Thr Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser
199      35      40      45
202 Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile
203      50      55      60
206 Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala
207 65      70      75      80
210 Arg Phe Ser Trp Leu Ser Leu Val Pro Phe Val Gln Trp Phe Val Gly
211      85      90      95
215 Leu Ser Pro Thr Val Trp Leu Ser Val Ile Val Met Met Trp Tyr Trp
216      100      105      110
219 Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro
220      115      120      125
223 Ile Phe Phe Cys Leu Trp Val Tyr Ile
224      130      135
227 <210> SEQ ID NO: 6
228 <211> LENGTH: 480
229 <212> TYPE: DNA
230 <213> ORGANISM: hepatitis B virus
232 <400> SEQUENCE: 6
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236 tctaattcca ggatcttcaa ctaccagcac gggaccatgc agaacctgca cgactcctgc      120
238 tcaaggaacc tctatgtatc cctcctgttg ctgtaccaa ccttcggacg gaaattgcac      180
240 ctgtattccc atcccatcat cctgggcttt cggaaaattc ctatgggagt gggcctcagc      240
242 ccgtttctca tggctcagtt tactagtgcc atttggtcag tggttcgtag ggctttcccc      300
244 cactgtttgg ctttcagtta tagtgatgat gtggtattgg gggccaagtc tgtacagcat      360
246 cttgagtcct tttttaccgc tgttaccaat tttcttttgt ctttgggtat acatttaaac      420
248 cctaacaaaa caaaaagatg gggttactct ttacatttca tgggggtatgt cattggatgt      480
251 <210> SEQ ID NO: 7
252 <211> LENGTH: 31
253 <212> TYPE: DNA
254 <213> ORGANISM: artificial sequence
256 <220> FEATURE:
257 <223> OTHER INFORMATION: synthetic probe or primer
259 <400> SEQUENCE: 7
261 cacctgcagc ctcatTTTgt gggtcacat a      31
264 <210> SEQ ID NO: 8
265 <211> LENGTH: 35

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266 <212> TYPE: DNA
267 <213> ORGANISM: artificial sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: synthetic probe or primer
272 <400> SEQUENCE: 8
274 cataagcttc acaattcggtt gacatacttt ccaat 35
277 <210> SEQ ID NO: 9
278 <211> LENGTH: 31
279 <212> TYPE: DNA
280 <213> ORGANISM: artificial sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: synthetic probe or primer
286 <400> SEQUENCE: 9
288 gtgctgcagt ttgtgggtca ccatattctt g 31
291 <210> SEQ ID NO: 10
292 <211> LENGTH: 32
293 <212> TYPE: DNA
294 <213> ORGANISM: artificial sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: synthetic probe or primer
299 <400> SEQUENCE: 10
301 gacaagcttt tgacatactt tccaatcaat ag 32
304 <210> SEQ ID NO: 11
305 <211> LENGTH: 12
306 <212> TYPE: PRT
307 <213> ORGANISM: artificial sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: Tag 100 epitope
312 <400> SEQUENCE: 11
314 Glu Glu Thr Ala Arg Phe Gln Pro Gly Tyr Arg Ser
315 1 5 10
318 <210> SEQ ID NO: 12
319 <211> LENGTH: 10
320 <212> TYPE: PRT
321 <213> ORGANISM: artificial sequence
323 <220> FEATURE:
324 <223> OTHER INFORMATION: c-myc epitope
326 <400> SEQUENCE: 12
328 Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
329 1 5 10
332 <210> SEQ ID NO: 13
333 <211> LENGTH: 7
334 <212> TYPE: PRT
335 <213> ORGANISM: artificial sequence
337 <220> FEATURE:
338 <223> OTHER INFORMATION: FLAG-epitope
340 <400> SEQUENCE: 13
342 Asp Tyr Lys Asp Asp Asp Lys
343 1 5

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Input Set : A:\new SEQUENCE LISTING.txt

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348 <212> TYPE: PRT  
349 <213> ORGANISM: artificial sequence  
351 <220> FEATURE:  
352 <223> OTHER INFORMATION: HA epitope  
354 <400> SEQUENCE: 14  
356 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala  
357 1 5  
360 <210> SEQ ID NO: 15  
361 <211> LENGTH: 12  
362 <212> TYPE: PRT  
363 <213> ORGANISM: artificial sequence  
365 <220> FEATURE:  
366 <223> OTHER INFORMATION: protein C epitope  
368 <400> SEQUENCE: 15  
370 Glu Asp Gln Val Asp Pro Arg Leu Ile Asp Gly Lys  
371 1 5 10  
374 <210> SEQ ID NO: 16  
375 <211> LENGTH: 11  
376 <212> TYPE: PRT  
377 <213> ORGANISM: artificial sequence  
379 <220> FEATURE:  
380 <223> OTHER INFORMATION: VSV epitope  
382 <400> SEQUENCE: 16  
384 Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys  
385 1 5 10

**VERIFICATION SUMMARY**

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L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date